

REMARKS

This Amendment is filed in response to the Office Action mailed on September 29, 2005. All objections and rejections are respectfully traversed.

Claims 1 to 23 and 25 to 50 are in the application.

Claim 24 is cancelled without prejudice.

35 U.S.C. §102

At paragraphs 2-3 of the Office Action, claims 1-3, 5-6, 8-9, 22, 24-26, 28-29, 31-35, 37-38, 40-44, 46-47, 49-50 are rejected under 35 U.S.C. §102 as being anticipated by lee at al., US Patent No. 6,883,108, issued on April 19, 2005.

Applicants submit herewith the Declaration Under 37 C.F.R. §1.131 of Co-inventors Anthony F. Aillo and Radek Aster. As set forth in the Declaration, the present invention was conceived by the co-inventors prior to May 7, 2001 (the filing date of Lee) and the co-inventors worked diligently to reduce their invention to practice from a time prior to May 7, 2001 until their filing date. Accordingly, pursuant to §1.131, Lee is no longer effective as a reference against the present application. Furthermore, because the rejection of claims 1-3, 5-6, 8-9, 22, 24-26, 28-29, 31-35, 37-38, 40-44, 46-47, and 49-50 hinges on Lee, these claims should now be allowable.

Applicants further submit that the present invention is distinguishable over Lee.

The present invention as set forth in representative claim 1 comprises in part:

1. A method for performing an input/output operation to a storage device from a computer, the method comprising the steps of:
selecting a first data path from a set of data paths between the computer and the storage device;
attempting the input/output operation using the selected first data path;
selecting, in response to an error in the input/output operation using the first data path, a next data path from the set of data paths; and
attempting the input/output operation using the selected next data path.

By way of background, Lee describes a system for routing communications in a storage system where a plurality of nodes are used to route the communications. The plurality of nodes are interconnected by an interconnection fabric that provides multiple independent paths between each source node and each destination node. When a communication attempt fails to send, then the sender chooses a second node path from a table supplied by the sender. (Col 9, lines 1-15 & Col. 11, line 64 to Col. 12 line 19).

Applicant respectfully urges that Lee does not anticipate Applicant's novel step of *selecting a first data path from a set of data paths between the computer and the storage device ... selecting, in response to an error in the input/output operation using the first data path, a next data path from the set of data paths* . In further detail, Applicant's set of data paths is automatically created by the administration layer and updated in real-time. Additionally, the computer automatically selects a second path created by the

computer. In sharp contrast, Lee describes the sender creating the route table instead of a computer generated list as in Applicant's invention..

Accordingly, Applicant respectfully urges that the Lee patent is legally precluded from anticipating the presently claimed invention obvious under 35 U.S.C. §102 because of the absence from Lee of Applicant's claimed novel step of *selecting a first data path from a set of data paths between the computer and the storage device ... selecting, in response to an error in the input/output operation using the first data path, a next data path from the set of data paths.*

At paragraph 4 of the Office Action, claims 10-21 and 23 were rejected under 35 U.S.C. §102 as being anticipated by Cheng et al., US Patent No. 6,802,021, issued on October 5, 2004, hereinafter Cheng.

The present invention, as set forth in representative claim 10 comprises in part:

10. A method for maintaining a set of data paths accessible by a set of upper level services of a storage operating system of a computer, the method comprising the steps of:

creating a device instance associated with a storage device;

creating a first path instance distinct from device instance, where the first path instance is associated with a first path to the storage device;

creating, in response to events identifying an addition of a path, an additional path instance associated with an additional path to the storage device, where the additional path is distinct from the device instance; and

deleting, in response to events identifying a removal of a path, a path instance associated with the removed path.

By way of background, Cheng discloses a data storage system having multiple paths from a computer to a storage device. Each storage device has one associated device object for each data path providing access to the storage device. (Col. 5, lines 40-45).

Applicant respectfully urges that Cheng does not show Applicant's claimed novel step of *creating a first path instance distinct from device instance, where the first path instance is associated with a first path to the storage device*. In further detail, the device instance in Applicant's claimed invention is a data structure created and maintained by the routing administrator layer to store various information regarding a particular device. Additionally, a path instance describes a path from the file server to the given storage device. In sharp contrast, Cheng generates a separate device instance for every data path (Col. 5, lines 40-45), thereby necessitating a masking step to hide duplicate logical device instances from the user (Col 8, lines 5-9).

Accordingly, Applicant respectfully urges that the Cheng patent is legally precluded from anticipating the presently claimed invention under 35 U.S.C. §102 because of the absence from Cheng of Applicant's claimed novel step of *creating a first path instance distinct from device instance, where the first path instance is associated with a first path to the storage device*.

35 U.S.C. §103

At paragraphs 5-6 of the Office Action claims 4, 7, 27, 30, 36, 39, 45, 48 were rejected under 35 U.S.C. §103 as being unpatentable over Lee, in view of Cheng et al., US Patent No. 6,769,071, hereinafter Cheng '071.

Applicant respectfully notes that claims 4, 7, 27, 30, 36, 39, 45, and 48 are dependent claims that depend from independent claims that are believed to be in condition for allowance. Accordingly, claims 4, 7, 27, 30, 36, 39, 45, and 48 are believed to be in condition for allowance.


Therefore, all independent claims are believed to be in condition for allowance.

All dependent claims are believed to be dependent from allowable independent claims, and therefore in condition for allowance.

Favorable action is respectfully solicited.

Please charge any additional fee occasioned by this paper to our Deposit Account No. 03-1237.

Respectfully submitted,



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